



BY HOWARD S. FISK.

AUTOMOBILE racing is as much a business as a sporting proposition, and with that in view the Philadelphia motor speedway at Warminster, Pa., is being constructed to meet the requirements from all directions. First, with the idea of affording high-grade speed contests, with safety to the participants and comfort and convenience to the spectators; and, second, to afford to manufacturers, inventors and owners an opportunity to try out the merits of

for the interest of greater frequency of passing cars. By ironing out the curves to transition spirals at the points where they merge in the straightaways, the banking can be skillfully proportioned to the increasing curvature, and the safety of the driver increased by providing for him the balance to his overturning moment, that his skill must otherwise provide on tracks with sharp curves and hazardous pitches.

Track Laid in Concrete.

The Philadelphia track will be of wood laid on concrete, this providing the ideal running surface on a foundation that

course, where observation trains will be placed during the races.

Resumes Auto Press Work.

The withdrawal of the Maxwell Motor Sales Corporation from racing has made possible the transfer of Content Manager Paul Hale Brunke to a factory position in which he will have charge of the newspaper work of the company, with headquarters in Detroit. Mr. Brunke handled the Maxwell racing team from January 1 to the date of its disbanding, during which period its

ment, being accepted in payment for inspections and work done. The idea is new with this concern, a business being the number of the car being given to each purchaser.

On Motor Trip Up Coast.

Mr. and Mrs. Henry C. Stein and son Elmer and Mrs. Wilson M. Eppley are enjoying a motor trip up the Jersey coast to New York city. They left Washington a few days ago and took the ferry at Wilmington, Del., for Penna. Grove, N. J., from which point they motored to Atlantic City. They had a narrow escape at Franklinville, N. J., on the way to Atlantic City. After being given the signal to cross the railroad tracks by the flagman on duty, a train speeded past the crossing, within fifteen feet of the machine in which they were riding. After spending several days in New York they will return via Trenton and Philadelphia. They are making the trip in Mr. Stein's Ford car.

A Briscoe Visitor.

George P. MacGowan, supervisor southeastern district for the Briscoe Motor Company, was a visitor for a couple of days last week. He was here in the interest of the company which he represents.

En Route Through South.

Amos Fisher, eastern representative for the Studebaker Corporation, after spending the week-end in the National Capital, left for Richmond and the south on an extended trip.

Mitchell Representative Here.

W. A. Walton, representative for the Mitchell line, left Thursday for the south after a brief visit in this city. While here he was the guest of Miller Bros., local representatives.

Nation-Wide Service Policy.

The Hupp Motor Car Company has devised a nation-wide service plan, which has just been put into operation. The distinctive feature is a book of one hundred coupons which every buyer receives with a 1916 Hupmobile, entitling the owner to fifty hours of free labor, sufficient under ordinary circumstances to keep the car in perfect running order. These coupons are good for service at any of the Hupmobile service stations in the United States or Canada. This plan provides for regular car inspection and adjustment of every Hupmobile.

Jitney Buses of Unique Design.

Six new jitney buses of unique design have just been delivered to the District Jitney Bus Company, by the firm of Miller Brothers for operation on two jitney routes which were put into commission last week. These buses are of the pay-as-you-enter type, with the entrance on the right side opposite the driver's seat, and are so constructed that the passengers can easily enter the car from the curb. They are lighted by dome electric lights, are provided with electric push buttons for the convenience of the passengers in signaling the driver, and a cash or ticket box into which the fares are placed by the passengers on entering the car.

Requires Warnings at R.R. Crossings

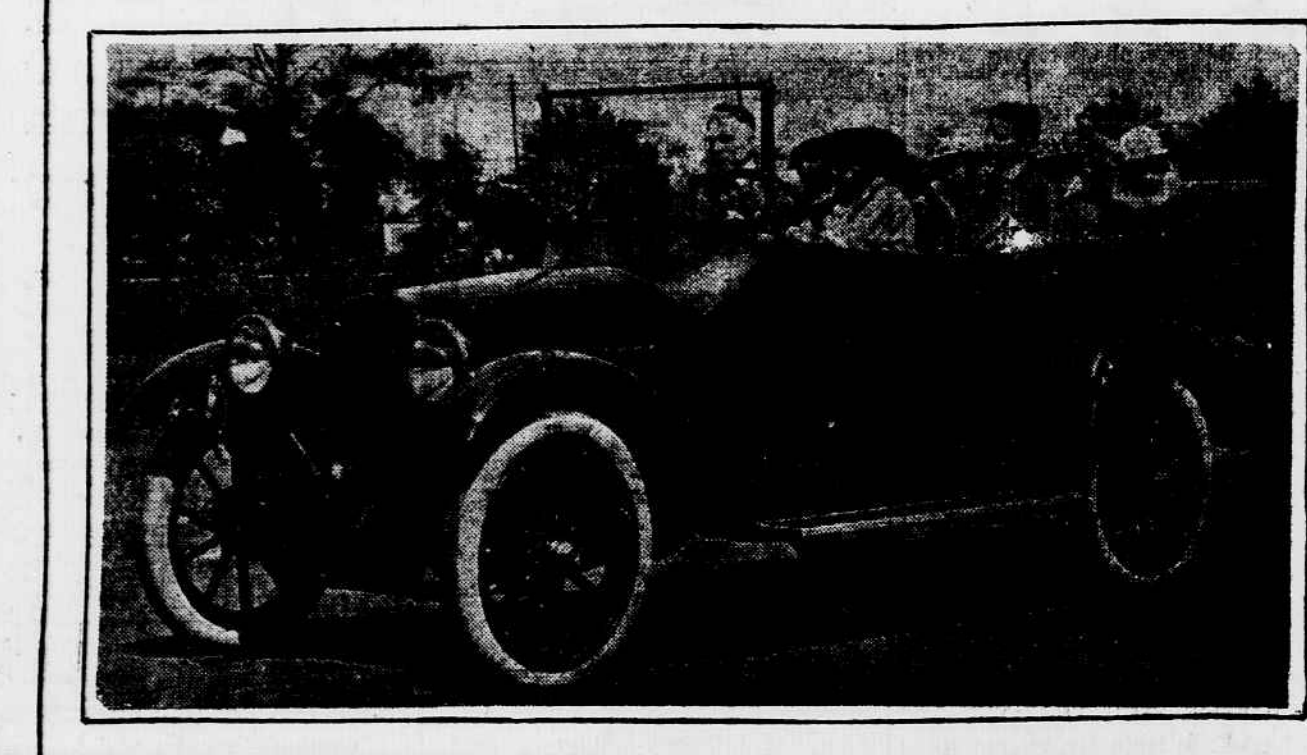
New Hampshire now has a law placing the protection of railroad grade crossings in the hands of the public service commission, which has ordered that each city and town shall maintain warning signs at a reasonable distance on each side of crossings. The signs must be of enameled metal, 24 by 12 inches in size, and have white letters on a blue ground. If any town neglects to set such signs for sixty days, it forfeits \$1 for each day.

A Haynes Purchaser.

The latest purchaser of a Haynes five-passenger touring car is Mrs. Nellie R. Gibson of Rockville, Md. Delivery was made a few days ago.

FISK ROAD BOOK

Compiled by Howard S. Fisk
300 ROUTES
75 MAPS
75c
AUTO SUPPLY STORES,
HOTELS AND NEWSSTANDS.

CHALMERS 6-40 SEVEN-PASSENGER TOURING CAR.

their machines under uniform conditions that will afford a basis of comparison.

To meet these demands, the plans of the Philadelphia track stand comparison with the existing track at Brookland, England, and Indianapolis. The Brookland track is three and a quarter miles in circuit, paved with concrete, and pear-shaped in contour. It was built primarily to afford English manufacturers the same advantages of tests for speed and endurance as were enjoyed by continental manufacturers who could hold road races over impor-

will prevent the setting and buckling that so seriously affect the Chicago track. Concrete curbs, hub high, the full circuit of the track will reassure the driver of danger of decapitation in running in wooden fences, and finally the subways provided at various points on the circuit will remove at all times the fear of both drivers and spectators—that of unconscious trespassing on the track.

Under such conditions racing is bound to take on a new meaning and interest. Safety is assured, records will be broken, old interests will be revived, and the hazy days of early speed contests will be assured Philadelphia.

The speedway for automobile racing

drivers led all American cars in winning.

Prior to the Maxwell connection Mr. Brunke did similar work on the staff of the Studebaker Corporation.

Service Coupon Books.

The Probey-Arison Motor Company has recently inaugurated a new service idea in connection with Apperson owners, in the shape of coupon books entitling an owner to service free of charge. The coupons, twenty in number, are good for one dollar's worth of labor charges in the service depart-

1916 5-PASSENGER MAXWELL TOURING CAR APPEARS ON MARKET

Some of the features of the latest model include new-shaped radiator, true stream-line body, new clutch system in oil-tight, compact housing; electric starting and lighting system, high tension magneto, one-map top and demountable rims.

tant highways—not permitted in England, and, incidentally, not permitted in America, either. The value of the speedway was at once manifested by its popularity.

The Indianapolis speedway has had a gradual development. From a dirt track of two and one-half miles in circuit—intended primarily for local automobile events—it has improved until today the track is brick paved, protected by banks and the yearly events are of nation-wide importance, attracting larger attendance than any other sporting event in America. Furthermore, even the most conservative car builders are only too glad to tell you what their cars have done in public test or private trials on the Indianapolis track, for there is today nowhere in America where such tests can be made under proper conditions of privacy, safety and convenience except at Indianapolis.

With only two speedways in America, the Philadelphia motor speedway comes into existence at the proper time. Situated central to all the large cities of the east, it contains 11,000,000 within the same radius that Indianapolis contains 1,400,000.

Profiting by the existence of the older tracks, it will combine the best features of all and eliminate the troublesome ones. It will be two miles in circuit, but the curves will be as easy as those which make the Brookland track faster than Indianapolis, while affording the specta-

now under construction at Warminster, above Willow Grove, under the auspices of the Philadelphia Motor Speedway Association, will be the superior of any existing speedway in the country in many respects. Chief among these will be the facility for entrance and egress from interior of the track. Messrs. Heacock and Hokanson, the architects of the track which is now under construction, have provided for an entrance and an exit every seventy-five feet. In addition to this there will be more than a score of tunnels under the track, so that automobiles will have free and easy access to the parking space inside the two-mile oval.

These easy facilities are carried out also in the provisions for trolley service. There is a trolley subway directly under the grandstand, so that those going to the park by that means are never endangered by automobiles. Likewise a railroad terminal of eighteen tracks is to be provided, and the visitors to the race track by railroad will have the same safety assured through special provisions.

The grandstand will have a seating capacity of practically 100,000. For the members of the association which owns and will operate the speedway there is a special stand. These stands will represent the last word in open-air seating comfort. Another seating feature that will be new to motor speedways will be the railroad spur alongside the outside edge of the race

ARGO ROADSTER

\$385

F. O. B. Factory.

Shaft-Driven
Four-Cylinder
Standard Tread
Economical
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Comfortable
Electric Start-
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Additional.
Demonstration
Given.

Smith Motor Sales Co., 2017 14th St. N.W.

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Main 23 Main 23 Main 23 Main 23 Main 23 Main 23 Main 23 Main 23 Main 23 Main 23

For the protection and benefit of our patrons we are issuing coupon books worth \$55 in the purchase of accessories, supplies, repairs, or gasoline for \$50.

200 of these books only will be issued—the coupons to be good until used.

Our patrons are respectfully advised to take advantage of this offer.

Record Auto Supply and Service Co.
631 Mass. Avenue

Main 23 Main 23 Main 23 Main 23 Main 23 Main 23 Main 23 Main 23

Rule for Pedestrians.
The pedestrian in St. Louis nowadays must walk the chalk-line, literally. The director of streets has decreed that there shall be no more crossing of crowded streets cat-a-corner, no more helterskelter scurrying between motor cars, street cars and wagons, no more avoidable accidents. So heavy white lines have been painted from corner to corner on the building line and sidewalk line, in this path, and this alone, may the pedestrian henceforth cross downtown streets. The traffic policemen have been asked to enforce this rule as rigidly as other traffic ordinances.

PLANS TO USE WATER TO RUN AUTO ENGINES

George H. Moriarty Tells How Explosive Gases May Be Obtained From H₂O.

Declares They Will Be More Powerful Than Gasoline, Naphtha or Kerosene.

George Harris Moriarty, a Washington boy, residing at 811 E street northwest, after several years of experimenting, has discovered that water can be used as a fuel for an internal combustion engine of the reciprocating type. "Water," he says, "when used as an explosive power, is far more powerful than gasoline, naphtha or kerosene. The explosive power of the gases which is taken from water develops 89.87 per cent horsepower. The other 10.13 per cent power is lost through the energy taken to dissociate the gases which form water.

"The gases which are taken away from the water are known as oxygen and hydrogen. Water, when it is distilled, only has left the liquid elements of oxygen and hydrogen. All other elements which form water, such as iron, copper, sulphur and other elements unknown to chemistry, leave water as it is distilled. Distilled water thus has only two elements, 82.22 parts hydrogen and 17.78 per cent oxygen. This oxygen and hydrogen is separated from its natural source (water) by the means of electrolysis under the form of two electrodes, which are placed in the separating chamber of the water.

Making Water Gases.

"One is a positive electrode, the other a negative. Both electrodes, coming from a six-volt battery, with the help of a small quantity of sulphuric acid, which is put in the water to electrolyze it, develop the electric power to dissociate gases. When the oxygen and hydrogen are separated they are then passed by siphon feed into the two separate pipes, oxygen going through one and hydrogen through the other. These two pipes are then run to an automatic timer, which operates from the cam shaft. This timer distributes the oxygen and hydrogen equally into each cylinder by the means of a vertical poppet valve. The gases then, by the suction of the piston, are drawn into the compressing chamber. Then they are exploded by means of compression and a spark plug, which forms combustion.

"In running a motor this way it develops 89.87 per cent actual power. Gasoline develops 90 per cent actual power. The other 10 per cent of power is lost, due to the quick explosion, which takes place in the compression chamber. 10 per cent of the gas remaining unexploded. This is when an engine is running.

"The gases which form water are more sensitive and more powerful for explosive purposes, as no power is lost due to lack of unexploded gases. It is more staple to rely on, as there is no carburetor or mixer to adjust. So I think, with a little more experimenting, water can be used as a commercial product as a fuel for automobiles, marine, stationary and aeronautical motors."

Hupmobile for Orange Dealers.

A 1916 Hupmobile touring car was delivered during the past week to Bates Brothers of Orange, Va.

C. A. EARL TO GO WEST.
Made a Vice President and Director of Willys-Overland Company.
Clarence A. Earl, one of the foremost figures in the New England manufacturing field, is to become a vice president and director of the Willys-Overland Company, Toledo, Ohio. The arrangement is another of the steps taken by President John N. Willys to give the company the benefit of an official personnel that represents the highest type of executive and managerial ability that is to be obtained. Mr. Earl's experience has been such

that he is not only a manufacturing executive, capable of organizing and directing a factory on lines of maximum efficiency, but he is an experienced director of sales policies and organizations, and at the same time enjoys a high place in the eastern of Boston and New York banking houses, who have reason to know his capacity in large financial matters.

Recent Reo Deliveries.

During the past week Reo four-cylinder touring cars were delivered to the following: C. J. Brown, F. H. Hough, N. Auth, Frank J. Auth, Mrs. Irene Carter and Richard Heater.

Motored From Quaker City.
C. H. Warrington of the Warrington Motor Car Company motored from Philadelphia to this city last Monday afternoon. Leaving Philadelphia at 1:30 o'clock short stops were made at Wilmington and Havre de Grace, arriving here at 8:30 o'clock in the evening. He drove a new 1916 Chandler touring car on the trip, which was made without incident.

Cadillac "Eight" Deliveries.
Cadillac Eight touring cars were delivered during the past week to G. W. Fleming, F. L. Smith and J. L. Goldberg.

490 CHEVROLET 490

On January 2, 1915, at the New York automobile show in Grand Central Palace, the Chevrolet Motor Company placed on exhibition a five-passenger car called the Chevrolet "Four Ninety" and represented that it would be ready for the market June 1, to sell for \$490.00 without and \$550.00 with electric starting and lighting system.

The car immediately became the sensation of the show.

It incorporated so many features found previously in high priced cars only, together with so many original ideas, that a new standard was immediately established in motor car construction.

Automobile dealers from everywhere inspected the car and marveled at its possibilities from a merchandising standpoint.

Many thought that the car could not be built for the price, some predicted that it would never be put on the market, while others went so far as to say that it was being used for advertising purposes only. At any rate, CHEVROLET at once became the most-sought-after agency in the industry.

Well, on June 2 the first "Four Ninety" was placed on the market.

On June 19 the Chevrolet Motor Company had accepted orders (all covered by cash deposits) for over 47,000 cars of this model. Not bad for 17 days' work. To date this figure has been increased to over 80,000.

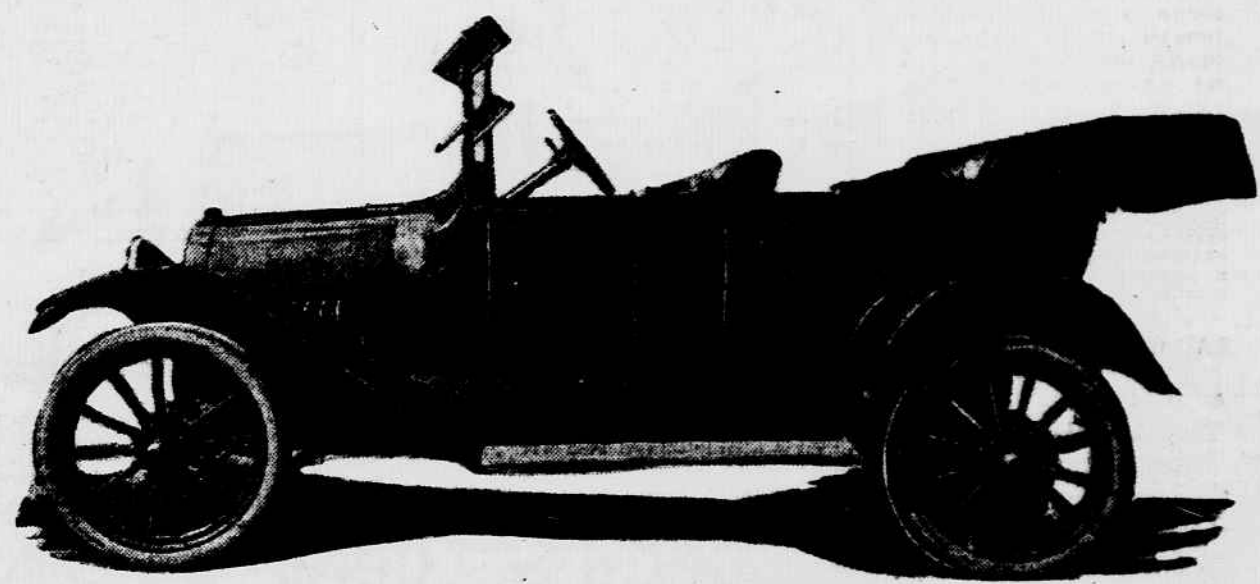
The car is now ready for your inspection and we can make immediate delivery.

A FEW FEATURES

30 horse-power valve-in-head motor.
103-inch wheel base.
Three-speed selective transmission.
Zenith non-adjustable carburetor.

Cantilever spring front and rear.
Full streamline body.
Rain vision and ventilating windshield.
Crowned fenders.

The Henderson-Rowe Auto Co.
Phone Main 3543 1012 14th Street N.W.



490 \$490 f. o. b. Flint, Mich. 490

Detroit Electric

Doubled output for 1916 reduces prices as low as \$1975

Last year the Detroit Electric led any enclosed car—either gasoline or electric—in volume of sales. Clearly it won this preference among motor car buyers solely because of its greater value—for many enclosed cars ranked lower in price.

August 15 we reduce the price \$600 to \$725 per car

Remember—these are the same high quality cars as our 1915 models plus a score or more of 1916 refinements. Even while lowering the price, we bettered the car. In the 1916 Detroit Electric, you will find—we believe—the top place car of its type. We urge you to match it—if you can—in elegance, quality, utility, or value in the entire closed car field—gasoline or electric. This price reduction is possible only because of doubled output.

You get these savings

Our doubled production leads to many economies in all overhead expenses, in purchasing, in advertising, in sales cost, in engineering. All the savings effected by our larger operations we hand on to you—and take our benefit from doubled volume.

Here are the 1916 prices

Model 61 4-Passenger Brougham (Formerly \$2,600) — Now **\$1,975**
Model 64 5-Pass. Duplex Drive Brougham (Formerly \$3,000) — Now **\$2,275**
Model 59 5-Pass. Rear Drive Brougham (Formerly \$2,950) — Now **\$2,225**
Model 58 5-Pass. Front Drive Brougham (Formerly \$2,950) — Now **\$2,250**
Model 57 4-Pass. Rear Drive Brougham (Formerly \$2,850) — Now **\$2,175**
Model 56 3-Pass. Cabriolet (Formerly \$2,650) — Now **\$2,075**

You may have either the warm hotel car or the warm party car or even the warm or pneumatic tire, as optional equipment.

Call on us at once—and learn why the 1916 Detroit Electric is the preferable car for you.

EMERSON & ORME

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